

ABSTRACT

The temperature of cooling air to a manifold for distribution to molds of a glass manufacturing machine is controlled by passing untreated air through an indirect heat exchanger in indirect heat exchange relationship with water flowing through a coil in the indirect heat exchanger before treated air from the indirect heat exchanger is passed through a blower for distribution to the manifold. Water for treating the air flowing through the indirect heat exchanger is pumped through the coil from a water cooling tower that is used in a glass manufacturing plant, either at a first temperature from a first outlet of the water cooling tower or at a second temperature from a second outlet of a water cooling tower, or a mixture of water from the first outlet and the second outlet. In a first embodiment, water from the first outlet and water from the second outlet pass through a temperature controlled three-way mixing valve before delivery to a pump for delivery to the indirect heat exchanger. In a second embodiment, water from a first outlet is delivered to a pump and then to a temperature control three-way valve for delivery to the indirect heat exchanger or for return to a location upstream of the pump. In the latter embodiment, air from the blower is also caused to flow through a second indirect heat exchanger before delivery to the manifold, and its temperature is altered in the second indirect heat exchanger in indirect heat exchange relationship with water flowing through a coil in a second indirect heat exchanger. In this embodiment, water flows from the water cooling tower to the coil of the second indirect heat exchanger, and a temperature controlled two-way valve is placed in a line between the water cooling tower and the second indirect heat exchanger to control the rate of water flowing through the second indirect heat exchanger.